



Center for Toxicology and Environmental Health, L.L.C.

615 W. Markham Street Little Rock, AR 72201 Phone: 501.614.2834 Fax: 501.614.2835 www.cteh.com

Friday, October 21, 2005

Murphy Oil USA, Inc.
Meraux Refinery
St. Bernard Hwy
Meraux, LA

Gentlemen:

By letter dated September 21, 2005 we provided you with an assessment of short term health risks associated with the presence of crude oil in the residential area affected by the oil spill caused by Hurricane Katrina. You have now asked us to map the affected area and to address potential long term health and safety issues for those homeowners who restore or rebuild their houses.

Attached is our map of the area that, in our professional opinion, outlines the area within which homes affected by the spill are located. We based this map on a combination of visual inspections, representative soil testing (both outside and inside homes) and surface tests on home exteriors. Over 400 individual homes have been tested thus far and additional tests will be conducted as homeowner consents are received. We have also conducted extensive air sampling both inside and outside private homes. Field portable instruments were used and samples taken were analyzed by accredited independent laboratories. Tests results will be made available both to individual property owners and to environmental regulators (USEPA and/or LDEQ). Based on this testing, we believe the maps accurately represent the limits of the area affected by the oil spill. However, it is possible that future testing may indicate small amounts of oil outside the mapped area. As additional testing is performed where homeowner's grant consent, we will supplement these conclusions as may be warranted by those test results.

The results of home testing are being compared to the Risk Evaluation/Corrective Action Program (RECAP) standards developed by the Louisiana Department of Environmental Quality (LDEQ). These standards address risks to human health and the environment posed by the release of chemical constituents such as crude oil to the environment (LDEQ, 2003). While some published materials suggest the possibility of health effects from direct skin contact with hydrocarbons such as oil, our specific tests of the homes in the affected area, with limited exceptions, showed that the homes we tested are already below RECAP standards even before there is any cleaning of homes and lots. Those that are not already below RECAP standards will certainly be in compliance once clean-up efforts are completed. Thus, we feel confident that based on the testing thus far, and the planned cleanup program, there should not be any long-term exposures to oil above RECAP standards and therefore the spill should not be expected to present any long term health and safety issues.

Very truly yours,

Glenn C. Millner, Ph.D.
Partner/Senior Toxicologist

Dyron Hamlin, MSE
Chemical Engineer

Alan C. Nye, Ph.D.
Partner/Senior Toxicologist

